

Substitute Specification

ABSTRACT

The invention provides apparatus for producing an extrudate product including a plurality of capillary channel. The apparatus comprises an extruder having an inlet, a die including an orifice having a predetermined outer shape and a plurality of needles each having a body including an internal conduit for fluid flow. Each needle further comprises an outlet from the internal conduit at an outlet end. The outlet end of each needle is arranged in a predetermined pattern substantially within the orifice of the die and the conduit of each needle is fluidly connected to a fluid source. In use extrudable material is fed into the extruder through the inlet. The extruder forces the extrudable material around the bodies of the needles towards the die and through the orifice in the die to produce an extrudate having substantially the predetermined outer shape. The needles allow fluid to be drawn from the fluid source through the conduit to be entrained in the extrudate product to form capillaries such that the extrudate product includes capillaries therealong in the predetermined pattern. Other aspects of the invention provide a method for producing an extrudate product including a plurality of capillary channels and an extrudate product having a plurality of capillary bores.